



**US Army Corps
of Engineers®**

Engineer Research and
Development Center

Capability/Service

Paints and Coatings PROSPECT Course

Description

The Paint Technology Center (PTC), located at the Construction Engineering Research Laboratory (CERL), Champaign, IL, conducts an annual Proponent Sponsored Engineer Corps Training (PROSPECT) course at the Champaign site and participates in an annual PROSPECT course in Dallas, TX. PTC staff also present information on painting practices at the PROSPECT course “[Corrosion Control](#),” held annually in Champaign, IL.

Attendance at PROSPECT schools should be coordinated through the District training officer and the USACE Learning Center at URL: <http://pdsc.usace.army.mil/>

Capabilities

PTC personnel participate in presenting the PROSPECT training course titled “[Paint Coatings and QA](#)” conducted annually in Dallas, TX. The goal of this course is to improve quality assurance techniques and reduce painting deficiencies by providing participants with

hands-on quality assurance techniques.

The course is open to

Corps, Navy, and other military and Federal government employees with current or projected duties as Quality Assurance (QA) representatives who require knowledge of coating systems involved in design, construction, or facility maintenance. The course is appropriate for architects and engineers with design, specification, and review responsibilities, employees who specify paint requirements for maintenance and new construction, and members of constructibility review teams.



PTC training stresses both classroom and on-site experience.

Supporting Technology

In-house PTC resources (paint samples and records) document a long history of working with paints and painting technologies for civil works structures, dating back to work in the Rock Island District in the 1930s. Center employees have formulated all the coatings commonly used on Corps hydraulic structures and have been monitoring many different coating systems both in laboratory test tanks and on field hydraulic structures across the country. They have drafted and are responsible for maintaining the technology in the current guide specification for painting hydraulic structures, and have worked with the Navy on the current guide specification for painting military structures. Center employees are members of the Steel Structures Painting Council, National Association of Corrosion Engineers, American Society for Testing and Materials, and the Master Painters Institute.

Benefits

The emphasis of the PROSPECT course titled “Paint Coatings: Submersible” is on the painting of Corps of Engineers civil works structures, with a focus on the content in-

cluded in civil works construction guide specification Unified Facilities Guide Specification (UFGS) [09964, "Painting: Hydraulic Structures"](#) and the Engineer Manual (EM) [1110-2-3400, "Engineering and Design - Painting: New Construction and Maintenance."](#) The 36-hour course (conducted in Champaign, IL) allows attendees to gain in-depth knowledge of paints for hydraulic structures. Students watch the manufacture of a batch of paint to learn about ingredients and their purposes, and participate in hands-on spray application of paint to learn application techniques and deficiencies. Students also learn to use field test equipment and receive a detailed review of the requirements in the current painting guide specification. With this knowledge, employees can help avoid problems related to painting of hydraulic civil works projects, which can reduce costs and increase efficiency.

The PROSPECT course titled "Paint" is based on UFGS [09900, "Paints and Coatings,"](#) the specification used by all of the military services for general painting projects, and UFGS 09964. The 36-hour course (conducted in Dallas, TX) covers such subjects as paint fundamentals; characteristics and selection of coatings; surface preparation and painting of steel and other metals, concrete and concrete block; wood, plaster, wallboard, and other surfaces; paint defects; paint approval; testing instruments; painting specifications, and environmental and safety regulations. Attendees visit a paint manufacturing facility where they tour the plant and have the opportunity to work with specialty coatings and sandblast and paint spray equipment. The course enables participants to reduce painting deficiencies by using quality assurance techniques and the basic concepts of paint composition, coating selection, safety, and construction quality management necessary to administer the painting requirements of the plans and specifications. With this knowledge, employees can help avoid problems related to painting of installation structures, which can reduce costs and increase efficiency. The course can also be presented as customized, onsite training upon request.

Success Stories

Course evaluations routinely contain superlative comments about the instructors' extensive knowledge, outstanding presentation skills, and their ability to keep the class involved. One representative comment from a student was "I learned a tremendous amount in this class . . . that will be of *direct* and *immediate* use to me on the job." Another student said, "This course should be required for Project Managers (PMs) and Operation Managers." Students repeatedly commented on the instructors' willingness to "extend a helping hand to help solve job site problems" after class hours, and to provide a telephone number for future assistance.

ERDC POC(s)

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